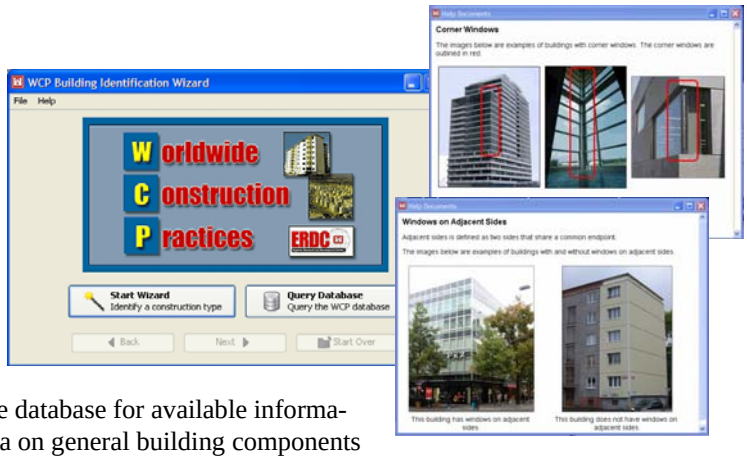
US Army Corps of Engineers®
Engineer Research and Development Center

Product

Worldwide Construction Practices (WCP)

Technology



The Worldwide Construction Practices (WCP) program consists of a relational database and a Building Identification Wizard (BIW) that steps a user through the process of identifying a building type given information easily obtained or visually obvious. Alternately, if the building type is known, the user may simply browse the database for available information. The database contains data on general building components that are compatible with FACEDAP (Facilities and Component Explosive Damage Assessment Program) building components and material properties based on typical construction practices worldwide.

Problem

Historically, there has not been a well-documented, centralized source of information regarding worldwide construction practices and material properties. This has presented a problem, as there is an escalating analytical need for reliable information on the geographic distribution of building types, building components, and material properties. Most assessment program algorithms, including current facility vulnerability assessment algorithms, are based on U.S. construction practices that lead to inaccurate assessments.

Expected Cost To Implement

WCP software will be made available on CD or by Internet download to Government users free of charge, upon email request to wcp@erdc.usace.army.mil.

Benefits/Savings

The WCP program provides rapid identification of building types and provides relevant engineering data available for typical building construction practices worldwide. The BIW aids engineers or military officers in creating building models for use in vulnerability assessment programs, such as the Antiterrorism (AT) Planner, and is suitable for incorporation as a module in these programs. The BIW provides building reports based on user inputs and provides parameters required for pressure-impulse-based structural calculations for engineering and modeling and simulation tools. Users can also export data compiled on buildings by creating an XML file for use in AT Planner assessments, and reports can be generated as HTML or PDF documents for use in other programs.

Status

WCP version 1.0 is scheduled for release in late 2006. The BIW will be updated on a regular basis to include user feedback and recommendations. The database will be continuously updated as new data become available. Future plans include developing a Web-based application to reside on a secure, password-restricted Web site in order to provide users with the most recent data available and the convenience of updates to the software on a daily basis.

ERDC POC(s)

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Distribution Sources

Requests for WCP software may be e-mailed to wcp@erdc.usace.army.mil. Before release of WCP to users with non-Government e-mail domains, a validation procedure must be completed.